

METAL LID WITH IMPROVED ADHESION TO PACKAGE SUBSTRATE

ABSTRACT

A metal lid for packaging semiconductor chips is stamped to form a sloped sidewall with a set-back from the edge of a package substrate. After the metal lid is placed over the semiconductor chip, molding compound is formed around portions of the exposed perimeter of the package substrate and against the sloped sidewall of the lid. The molding compound securely attaches the lid to the package substrate, providing improved reliability to the lid-substrate joint. The lightweight lid also increases standoff when a solder ball-grid array is used to connect the packaged IC to a printed wiring board, improving the reliability of the ball-grid array connections.